QUEST™ TECHNOLOGIES
a 3M company

SOUNDPRO® SE/DL HAND HELD SOUND LEVEL METER & REAL-TIME FREQUENCY ANALYZER

Typical Applications

- Workplace Noise Assessments
- Environmental Noise Assessments
- Administrative & Engineering Controls Selection
- Noise Ordinance Enforcement
- Hearing Protector Selection
- Task-Based Exposure Assessments

The Issue

The marketplace is saturated with sound level meters that provide basic summary noise data such as overall Lmin, Lmax, Leq/Lavg, Peak, Dose, Exposure, TWA and the like. These kinds of summary data can confirm that a noise problem exists but do little to help users trouble-shoot or resolve the problems found. Determining potential and most appropriate methods for correcting excessive noise levels requires a more detailed understanding of the nature of the noise. Unfortunately, obtaining more detailed information historically has meant users must deal with very complex sound measurement instruments and software that are difficult to learn, a challenge to operate confidently and highly prone to operator error. For those that dare venture into the complex world of advanced noise analysis questionable measurement data and unplanned time and expense is often experienced. For the rest of us, keeping things simple may mean choosing to ignore noise problems for fear of the complexities and costs involved.

The Solution

Keeping things simple no longer requires compromises in the completeness of noise analysis information. The new SoundPro SE and DL Series of Hand Held Sound Level Meters and Real-Time Frequency Analyzers in combination with QuestSuite Professional II applications software is specifically designed to greatly simplify the efforts required to reliably perform advanced noise analyses.

The user interface of these meters is patterned after Quest's popular NoisePro® Series Noise Dosimeters, the number one selling brand of noise dosimeter in the world and widely recognized for their ease-of-use. QuestSuite Professional II software and all models in the SoundPro SE & DL Series operate in English, Spanish, German, French, Italian and Portuguese languages. Instrument setup is as simple as a mouse click selection from a library of pre-defined and user-defined application profiles.

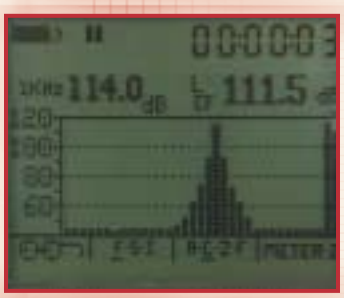
High speed USB communications between the SoundPro SE and DL Series meters and your computer allow rapid programming and data transfers. As an added bonus, SoundPro SE and DL Series meter data may be stored on a provided non-proprietary removable SD memory card. The SD memory card data can then be independently transferred to your computer for further analysis without taking the noise meter out of service.

All SoundPro SE and DL Series meters incorporate two virtual sound level meters for simultaneous measurements in accordance with multiple regulatory requirements. Meters equipped with 1/1 and/or 1/3 octave real-time frequency analysis allows users to choose between RTA and broadband measurement modes for one of the virtual sound level meters.

We invite you to read on to fully understand the powerful feature sets contained in the various models within the SoundPro SE and DL Series. With a total of twelve available models, one is certain to match your requirements.

Fast & Simple Setup

Ease of use is achieved through pre-defined and user-defined application setups that are loaded into the SoundPro meters with a single mouse click.



Accurate & Efficient Real-Time Frequency Analysis

Optional RTA mode provides real-time display and storage of the entire set of 1/1 or 1/3 octave spectra simultaneously. No more sequencing through each octave or 1/3 octave one at a time.

Informative Time History Profiles

Optional time history data is displayed graphically in real-time and stored numerically with date and time stamps.

Time Saving Back-Erase Utility Retains Original Data

Avoid starting tests over when noise anomalies occur in the middle of a study. Back-erase up to 20 seconds to remove anomalies from results. Retain original data as well.

What You Need When You Need It

" Soft Keys " simplify operator controls by providing users with direct access to context-sensitive control functions.

Non-Proprietary Removable Data Storage Media

All units include an SD memory card for data storage. Data stored on SD cards appear as a removable hard drive on your PC when inserted into an SD card reader.

Reporting & Exporting is a Snap

What you see is what you get (WYSIWYG) reporting is made possible by a design that allows users to select data panels to be reported and define their sequence as well. Data exporting is as simple as right-clicking on the data panel of interest and choosing the export format.

Ordering Information

PART NUMBER	DESCRIPTION
SP-SE-2	**SoundPro SE Class 2 Sound Level Meter with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-SE-2-1/1	**SoundPro SE Class 2 1/1 Octave RTA with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-SE-2-1/3	**SoundPro SE Class 2 1/1 and 1/3 Octave RTA with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711Carrying Case.
SP-SE-1	**SoundPro SE Class 1 Sound Level Meter with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 1 (BK4936) Prepolarized Condenser Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-SE-1-1/1	**SoundPro SE Class 1 1/1 Octave RTA with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 1 (BK4936) Prepolarized Condenser Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-SE-1-1/3	**SoundPro SE Class 1 1/1 and 1/3 Octave RTA with Summary Data Datalogging** Includes Meter, 1/2 " Class/Type 1 (BK4936) Prepolarized Condenser Microphone, (4) disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-DL-2	**SoundPro DL Class 2 Datalogging Sound Level Meter with Summary Data, Time History & Statistical Data Datalogging** - Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-DL-2-1/1	**SoundPro DL Class 2 Datalogging 1/1 Octave RTA with Summary Data, Time History & Statistical Data Datalogging** - Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-DL-2-1/3	**SoundPro DL Class 2 Datalogging 1/1 and 1/3 Octave RTA with Summary Data, Time History & Statistical Data Datalogging** - Includes Meter, 1/2 " Class/Type 2 (QE7052) Electret Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
SP-DL-1	**SoundPro DL Class 1 Datalogging Sound Level Meter with Summary Data, Time History & Statistical Data Datalogging** - Includes Meter, 1/2 " Class/Type 1 (BK4936) Prepolarized Condenser Microphone, (4) Disposable "AA" Alkaline Batteries, 56-164 Wrist Strap, WS-7 Windscreen, 53-575 USB Cable, 53-576 User Manual, 17-524 SD Memory Card and 53-711 Carrying Case.
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OPTIONAL ACCESSORIES	
QC-10	Acoustical Field Calibrator w/Single Output (114dB at 1000Hz)
QC-20	Acoustical Field Calibrator w/Selectable Output (114dB or 94dB at 1000Hz or 250Hz)
SUPPORT SOFTWARE	
57-860	**QuestSuite Professional II** - Single User License - Includes one CD and one user authorization code for installation of QuestSuite Professional II to support one office and one portable PC installation within the same company site.
57-862	**QuestSuite Professional II** - Multi User License - Includes one CD and (1) user authorization code for installation of QuestSuite Professional II to support a total of (10) concurrent network users or (10) stand-alone users or any combination of the two within the same company site.
57-864	**QuestSuite Professional II** - Unlimited User License - Includes one CD and (1) user authorization code for installation of QuestSuite Professional II to support an unlimited number of concurrent network users or stand-alone users or any combination of the two within the same company site.

Preliminary Technical Specifications

STANDARD AND APPROVALS	
Acoustics:	EN/IEC 61672, ANSI S1.4-1983, ANSI S1.43-1997 EN/IEC61260, ANSI S1.11-2004, (Also fulfills all requirements of IEC 60651 and IEC 60804)
European:	EMC: Pending testing on production products.
GENERAL	
Key Pad:	14 pushbuttons
Display Type:	Transflective 128 x 64 dot matrix
Backlighting:	Fiber-optic
Languages:	English, Spanish, German, French, Italian, Portuguese
MEASUREMENTS	
Available Measurements:	SPL, MAX, MIN, Peak, Ln, Leq, Lavg, Sel, TWA, Taktm, DOSE,PDOSE, Ldn, CNEL, Exposure
Ranges:	
Frequency:	Class 1: 3Hz – 22.4 kHz; Class 2: 20Hz – 8Khz; Filters: 1/1 octave (Optional); 1/3 octave (Optional)
Amplitude:	Broadband: (8) selectable 100 dB Dynamic Ranges . RTA: (8) selectable 80 dB Dynamic Ranges.
Maximum PEAK Level:	3dB above full scale reading
Parameters:	
Weighting:	A, C, Z, (Linear)
Response Time:	Fast, Slow, Impulse
Octave Band Filters (Optional):	Class 1, ANSI S1.11-2004, EN/IEC61260
Class/Type 1:	Center Frequencies: (1/3 Mode) 33 center frequencies from 12.5 Hz to 20 kHz. (1/1 Mode) 11 center frequencies from 16 Hz to 16kHz
Threshold:	0 – 140dB
Exchange Rates:	3,4,5,6dB
Run Modes:	Level triggered Run/Pause, Clock/Date triggered power on and Run for programmed duration, External logic input Run/Pause, Keypad initiated Run/Pause for programmed duration.
References:	
SPL:	114 dB
Frequency:	1 kHz
Direction:	0 degrees using a Free Field response microphone.
CALIBRATION	Calibration history is maintained and post study verification logged with calibration history
Calibrators:	QC-10 (114 dB, 1 kHz), QC-20 (94 dB, 114 dB, 250 Hz, 1 kHz)
DATALOGGING OPTION	Requires SD Card
Summary Data and Time History Data Logged:	MAX, MIN, Peak, Ln, Leq/ Lavg
Exceedence Level Data Logged:	2 user selectable Ln levels
Memory Capacity:	Size of installed SD memory card
Intervals:	1sec, 10sec, 15sec, 30sec, 60sec, 5min, 10min, 15min, 30min, 60min
SPECIAL FUNCTIONS	
Back-Erase:	Selectable 1 sec to 20 seconds.
Storage System:	Removable secure digital memory card (SD-Card). Required to store multiple session/studies, setup storage, and for the datalogging option. File formats are PC compatible binary files. QuestSuite is required to interpret data files.
PORTS AND CONNECTIONS	
Secure digital (SD) card:	Used for datalogging, storing setups, and storing session/studies.
Power Jack:	External power supply 9-16 Vdc
AC/DC output:	3.5MM stereo (tip AC, Ring 1 DC, Ring 2 Gnd)
10 pin auxiliary connector :	RS-232, 3 digital outputs, 1 digital input
USB :	Conforms to USB 2.0, Mini B connector

Preliminary Technical Specifications (cont'd)

ENVIRONMENTAL CHARACTERISTICS	
Temperature:	
Operating:	(< ±0.5dB effect) - 10 C to + 50 C
Storage:	-25 C to + 70 C
Humidity:	TBD
Shock & Vibration:	Magnetic:80 A/m, 50/60 Hz, no effect
External Fields:	Electric: 10 V/m, 1 kHz modulated, 30 MHz – 1 Ghz, < 55 dBC

ELECTRICAL CHARACTERISTICS	
Batteries:	(4) disposable AA Alkalines: 10 hours minimum continuous use depending on configuration/options. Excludes use of backlight.
External DC Power Input:	Voltage: 9 – 16 VDC
External DC Power Supply:	Input: 90 – 264VAC 50/60Hz Output: 9 VDC
Microphones:	Type/Class 2: QE7052 Type/Class 1: BK4936 (Standard)
Meter Input:	50 Kohm nominal input impedance
Preamplifier:	Directly accepts 1/2 in. (0.52" or 13.2 mm) microphone. Other sizes require an adapter
Pre-Amp Assembly:	Preamp is removable
Cable:	Will drive up to 30 meters of cable with negligible signal loss
Input Impedance:	Greater than 1Gohm with 1pf loading
Signal Limit:	11VAC

MECHANICAL CHARACTERISTICS	
Tripod Mount:	A threaded insert on back of the meter accepts a standard 1/4" – 20 tripod mounting screw
Housing:	Stainless fiber filled ABS/Polycarbonate with internal EMC shielding
Size:	3.1" W x 11.1 " H (w/preamp no microphone) x 1.6 " Thick
Weight:	0.54Kg or 1.2 lbs (including batteries)

Specifications subject to change without notice. For the most current specifications and additional information about Quest Technologies visit our web site at www.Quest-Technologies.com.

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